JUNE 2014

A Policy Playbook for Personalized Learning:

IDEAS FOR STATE AND LOCAL POLICYMAKERS

Carolyn Chuong and Sara Mead



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INTRODUCTION

A new generation of education technology is gaining traction in America's schools. Teachers across the country are incorporating apps and online videos into lesson plans. Tablets enable children who struggle with fine motor skills to overcome barriers to writing proficiency, and allow students to observe astronomic phenomena, experience historic sites, and view great works of art without leaving their classrooms. Tens of thousands of students are taking courses online. And online programs are helping schools communicate with parents and track student learning data in new ways.

These popular uses of education technology barely scratch the surface of its potential impact on education, however. The most common applications of education technology—a teacher occasionally using Kahn Academy videos, for example—are largely isolated add-ons to traditional educational experiences. These technology-based tools can make teachers' jobs easier and improve student learning, but they do not fundamentally alter how students learn or how teachers do their work.

Across the country, a handful of **models** are emerging that meaningfully shift the structure and organization of schooling in order to reimagine the classroom itself. Rather than simply adding on to what schools already do, these models leverage technology to change teachers' roles and create a much more personalized learning experience for students. Some of these models, such as Summit Public Schools in California, represent a new approach to organizing and staffing entire schools, while others, such as Teach to One: Math, focus on transforming students' educational experiences in a particular subject or grade level. Whether they transform an entire school day or just one subject area, these models represent a fundamental change in how schools design student learning experiences. They are not merely new products or tools but entirely new models of education organization and delivery.

By customizing learning experiences to students' interests and learning styles, these models have the potential to improve learning outcomes—giving students more support in areas where they struggle and accelerating their progress in areas where they excel. The same tools that enable customized learning for students can also enable teachers to use their time more efficiently and to achieve greater success in meeting students' needs, making the job more enjoyable and sustainable.

Yet these types of personalized learning models are still relatively rare, and are unlikely to achieve greater scale in the absence of policy changes to support their growth. Across our economy, the combination of ground-up, entrepreneurial innovation and market forces has proven powerful in adopting and scaling up transformative technologies. But in a publicly funded, heavily regulated field like education, entrepreneurship and markets alone are not enough to drive or scale transformational change. Federal, state, and local policies limit the ability of the private market to enter the education sector and work directly with schools and students. In addition, public-sector bureaucracy and politics can lead to changes in federal and state priorities, creating uncertainty for potential investors and entrepreneurs. Bringing new or existing models to a broader scale will require not only technological and educational innovation, but also public policy change.

There are at least three crucial ways in which policymakers can help fuel the growth of innovative approaches to personalized learning. Most obvious, policymakers can eliminate or change existing policies that create barriers to innovative learning models. Many existing policies—from school funding formulas, to class size limits, to accountability measures based on grade-level proficiency rather than competency, to graduation requirements—are based on specific assumptions about how schools operate and how teachers do their work. New personalized learning models challenge some of these assumptions by configuring staffing patterns and student groupings in new ways to enable more customized learning experiences. Existing policies can create unintentional barriers to this sort of innovation, but policymakers can eliminate these barriers by changing policies or allowing schools to obtain waivers so they can use time, resources, and staffing in new ways.

Many states have recently taken steps to remove barriers to personalized learning, for example by eliminating or waiving seat time requirements for high school graduation. But although these policies create some additional space to implement new models, they are unlikely, in themselves, to produce transformative results at scale. Experience teaches that the "if you build it, they will come," approach generally yields disappointing results in education. Bringing high-quality personalized learning to scale will require not just removing barriers but also addressing the underlying factors of demand and supply for personalized learning.

On the demand side, few educators and parents are currently seeking access to cutting-edge personalized learning models, either because they are not aware that these models exist, or because they do not understand what these models look like. Many parents and educators have experienced education technology primarily in terms of specific tools or products that are added on top of the existing educational model: a teacher incorporating PowerPoint slides or video into whole group instruction, for example, or a students using software rather than worksheets to practice math.

Spurring demand for more transformative uses of personalized learning will require parents and educators to understand that these models exist, what they look like, and what they can do for students. Policymakers can help foster this demand first by defining what truly transformative personalized learning models look like, and second by seeding creation or replication of these models in a handful of cutting-edge schools, to serve as proof points and models for other schools in the state.

Fostering demand, however, will have little impact if the supply to meet that demand is limited. A handful of personalized learning models exist, but more models and providers are needed to meet the full range of school contexts and student needs. These models can be developed by teams of educators at individual schools and districts working in partnership with design and technical experts. They can also be developed by third party partners—outside of the traditional public school system—that work to develop, implement, and refine new models across a range of school settings. What matters is not who creates the models but that they produce fundamental changes in student learning experiences, which in turn yield improved learning outcomes. Ultimately, a well-functioning market for personalized learning will require a range of models, both homegrown and externally developed and supported, from which schools and districts can choose.

Expanding the supply of either school-developed or externally created models will require increased investment in research and development. In contrast to most other industries, public education significantly underinvests in this area. While the federal government supports basic educational research and evaluation of the effectiveness of educational strategies—the R component of R&D—the percentage of total education funds dedicated to research is much lower than in most other industries. Moreover, there is almost no public investment in the kind of iterative development needed to produce functioning educational tools and solutions—the D in R&D. Elevating the role of R&D in public education will require states and school districts—not just the federal government—to play a larger and more intentional role in seeding the kind of educational R&D that leads to new models, much as private companies in other industries do. State and local governments can build the supply of personalized

learning models by investing in schools, districts, and third party providers—such as nonprofit organizations and higher education institutions—that want to develop new personalized learning models in response to identified state and local needs.

This policy playbook is designed to provide state and local policymakers with actionable ideas that can support the growth of high-quality and accountable personalized learning opportunities in their states and communities. In our multilayered system of public education, states and local districts have different, but often overlapping, roles in developing and implementing education policies. As a result, some of the policy ideas in this playbook primarily target policymakers at the state level; others target policymakers at the local level. Still others can potentially be implemented at either level. Because the specific roles and responsibilities of states and local districts vary, we have not created separate plays targeting policymakers at the state or local level, but we have tried to indicate the level at which each play is most likely to be applicable, or how application might vary between the state and local levels of government.

The plays are grouped according to the three areas of policymaker action outlined above:

- Plays that build supply of high-quality personalized learning models: Plays No. 1-2
- Plays that build demand for personalized learning models: Plays No. 3-7
- Plays that address the broader policy context to eliminate barriers to implementation of personalized learning models: Plays No. 8 15

An underlying assumption about all these plays is that they will work best in an overall state policy context that includes clearly defined standards for student learning that lead to college and career readiness; aligned statewide assessments of student learning that measure student growth and proficiency; and a well-designed and robust statewide accountability framework that meaningfully and accurately differentiates school performance in order to identify high-performing schools and target areas of school improvement.

Each policy idea, or "play," in this playbook provides background context on the challenges it is designed to address and the benefits it will produce; examples of places where similar policies have been implemented; and a discussion of the policy or implementation considerations that must be taken into account.

Because of the wide variation in each state's policy context, these plays offer **broad ideas**, **rather than detailed language**, which policymakers can take as a starting point to customize the plays to their own state or district and its unique circumstances. To assist in doing so, each play includes links to a set of resources and references that policymakers can use, as well as

contact information for national experts who can advise policymakers in developing specific policies suited to their unique needs.

Realizing the potential of personalized learning to improve student achievement will require the work of multiple stakeholders: school- and district-based educators working to design and implement personalized learning models; external model providers with the capacity to develop, iterate, and refine new models across multiple schools and districts; educator preparation and professional development providers who prepare and support teachers to implement personalized approaches; and other partners who can work with schools to support design and implementation of personalized learning. Policymakers are only one of many groups of stakeholders who must come together to expand students' access to high-quality personalized learning—but they have a crucial role to play. This playbook is designed to help them do so.



PERSONALIZED LEARNING POLICY PLAY #1:

CREATE AN INNOVATION FUND TO SUPPORT THE DEVELOPMENT, ITERATION, AND IMPLEMENTATION OF NEW MODELS

CONTEXT

Scaling up access to personalized learning will require strategies to address both the demand for and supply of effective models. Schools and districts need to want to implement personalized learning models, but they also need models that ensure there is no gap between supply and demand.

Public education is an inherently conservative enterprise: many school and district leaders perceive making significant changes to be much riskier than maintaining the status quo—even when the status quo does not effectively serve students. So students' schools and classrooms are similar to those that their parents and grandparents attended. Overcoming this dynamic often requires policy changes that create incentives for school or district leaders to undertake large-scale changes designed to improve student achievement—particularly changes related to personalized learning. Even if education leaders are excited about the potential of personalized learning, they may be reluctant to pursue these strategies if they believe that teachers will resist changes to their roles, that parents will be skeptical of new approaches, or that existing district systems (for example, textbook adoption cycles) won't readily fit with new models.

In addition, the financial resources required for the initial design or implementation of personalized learning models may pose a barrier for some schools and districts. Establishing personalized learning models requires investment in technology infrastructure, software, and licensing fees. Schools will also need to provide professional development to teachers so that they can effectively incorporate online content and data into their instruction. Depending on a school's needs, other start-up costs may include redesigning physical spaces and improving wireless connectivity. If these initial costs are prohibitive, schools that have the demand for personalized learning models will still be unable to put their ideas into practice.

Increased demand will also require a greater supply of personalized learning models. Currently, schools or districts that want to implement personalized learning have access to only a handful of fully developed, replicable models with some track record of effective implementation. But these models are not sufficient to meet the full range of school and district needs, and would not be able to meet a significantly increased demand for personalized learning. Policymakers will need to consider how to increase the supply of a wide variety of personalized learning models.

PLAY IN ACTION

State policymakers can support both the supply of and demand for personalized learning by designating funds that support the development, testing, and implementation of innovative models. These funds can increase demand for personalized learning by creating an incentive for schools and districts to undertake innovative approaches, and by helping to cover start-up or transition costs that might otherwise act as a barrier to implementing new models. By funding a relatively small number of pioneering schools and districts, states can also foster the development of personalized learning "proof points," which can spur increased demand among other schools and districts in the state. At the same time, innovation funds by enabling districts or external partners to develop new approaches to personalized learning—will also build the supply of effective personalized learning models to meet growing demand.

Ohio's \$250 million Straight A Fund, which the governor created as part of the state budget in 2013, is a potential model of a state innovation fund. Schools, districts, educational service centers, and institutions of higher learning may apply for one-time grants through a competitive process. Seed money in Ohio has spurred local innovation and increased adoption of personalized learning models. The Ohio Appalachian Collaborative Personalized Learning Network, a consortium of 27 rural schools, received a Straight A Fund grant in 2013 to create a dual-enrollment blended learning system with local colleges. Twenty-three other grantees from 2013 will use the funding for a variety of other initiatives, including providing educators with professional development on blended learning and developing "flipped" classroom models.

IMPLEMENTATION CONSIDERATIONS

To maximize the impact of innovation funding, states must carefully consider key design questions related to application process, eligibility, amount of funding, and grantee performance.

Innovation funds should be allocated through a competitive, rather than formulaic, process. A competitive process is crucial to ensure that funds go only to entities or grantees that are truly committed to innovation. This would require policymakers to develop a thoughtful plan for awarding competitive grants based on certain criteria. Specific grant criteria will vary in response to a state's needs and context, but should include school

and district capacity, commitment, and the track record of any proposed providers. In Ohio, an independent committee reviews and scores all Straight A Fund applications on fiscal sustainability and programmatic aspects before making recommendations to the governing board, which reviews the scoring analysis before making final recommendations to the controlling board.

State policymakers may wish to limit funding eligibility to schools and districts, an approach that is politically appealing because it ensures that funding will serve students directly and avoids the political opposition that may accompany grants awarded to nonpublic entities. However, limiting funding eligibility to schools and districts would exclude other organizations—such as colleges and nonprofits—that have the resources and skills to develop effective personalized learning models in partnership with districts. State innovation funds should allow districts and charter schools to apply for grants, but states should also consider allowing a range of other entities—including regional consortia, colleges, and nonprofits—to apply for grants in partnership with districts or schools. This broad eligibility approach would recognize the role of a wide range of stakeholders in personalized learning, and replicate the approach taken by the federal Investing in Innovation (i3) grant program and Ohio's Straight A Fund.

In addition to defining grantee eligibility, states must clearly define the types of activities that are eligible to receive grant funding. In the absence of clear criteria focused on innovation and personalization, districts or schools may choose to use funds for marginal or cosmetic changes that do not significantly improve student learning. The criteria should not focus exclusively on technology, but should prioritize efforts that combine increased use of technology with changes to human capital, use of time, and/ or other policies to increase personalized instruction and improve results for students.

Policymakers must also determine the size of the grants that applicants will receive. Funding levels need to be high enough to create a real incentive for districts and schools to innovate. However, funds should be used primarily for transitional and start-up costs; long-term operating costs must be covered out of the school's or district's existing budget, to ensure sustainability. In Ohio, the maximum Straight A grant amount is \$1 million for individual applicants and \$15 million for consortia.

Another potential strategy is for states to establish match requirements when distributing innovation funds. States could stipulate that grantees match state funding at a certain level—similar to how states must secure a 15 percent match to receive federal i3 funding. However, the specific match requirement will ultimately depend on state policymakers' goals, grantees' financial capacity, and the needs of local schools and districts. States may even want to consider a sliding-scale match to target high-poverty communities. An innovation fund with a match requirement would promote the

idea of a shared partnership between the grantee and the state, while still providing a financial incentive to the grantee. Other match requirements could involve philanthropic organizations or private corporations, similar to the strategy undertaken by Florida's School District Education Foundation Matching Grant Program. Through this program, local education foundations—which are each aligned with a local school district—apply for a competitive grant from the Florida Department of Education to fund an initiative in an eligible programmatic area. Before applying for a grant, each local education foundation must raise an equal amount of private sector funding from businesses, individuals, civic organizations, and/or foundations.

Lastly, a state innovation fund program should require grantees to commit to clear performance metrics related to both student learning outcomes and execution of proposed activities. Data on grantee performance should be reported in a transparent manner and used to inform future state policies related to personalized learning.

LEGISLATION

Ohio, H.B. 59 (established Straight A Fund program)

Ohio, Sub H.B. 342 (amendments to Straight A Fund program)

RESEARCH AND RESOURCES

Information about the federal **Investing in Innovation (i3) program** can be found at: http://www2.ed.gov/programs/innovation/index.html

An **Ohio** Legislative Service Commission **analysis of H.B. 59** can be found at: http://www.lsc.state.oh.us/analyses130/h0059-i-130.pdf

View a list of **Ohio's Straight A Fund grantees** in fiscal year 2014 at: http://education.ohio.gov/getattachment/Topics/Straight-A-Fund/First-Round-FY14-Grant-Material/Straight-A-GrantFinalists.pdf.aspx

Read about **changes to the Straight A Fund** program in fiscal year 2015 at: http://education.ohio.gov/Topics/Straight-A-Fund/Straight-A-Fund-News/Legislative-Update-FY15

View the **federal i3 program FAQs** to learn more about the match requirement: http://www2.ed.gov/programs/innovation/faq.html

The Florida legislature adopted the School District Education Foundation Matching Grant Program in 2000. Learn more about the program at: http://www.cfef.net/p/13/match-opportunity

A **New Jersey** senator introduced a bill in 2013 that would give \$5 million to the state Department of Education to establish an **Innovation Fund**, a competitive grant program for schools developing innovative models. Due to opposition from stakeholders who believed the funding should be used elsewhere, the **bill did not pass.** View the proposed bill at: http://www.njleg.state.nj.us/2012/Bills/S3500/3031_I1.PDF

¹ The six eligible programmatic areas are: literacy, graduation rates, career and technical education, support for low-performing students, STEM education, and teaching quality.



PERSONALIZED LEARNING POLICY PLAY #2:

ESTABLISH AN "APPROVED MODEL" DESIGNATION FOR PROVIDERS AND MODELS THAT MEET CERTAIN PARAMETERS REGARDING QUALITY AND INNOVATION

CONTEXT

As demand for personalized learning grows, a variety of providers and vendors will seek to market their tools, products, and models to schools as potential resources for implementation. But not all these tools and products are equally effective. Vendors may position specific products or tools—from tablets to software—as personalized learning solutions even though these offerings fall far short of providing comprehensive integration of human capital, technology, and content. Schools and districts will have to sift through a variety of tools, models, and vendors to identify those that will meet their needs and deliver effective results for students—and this can prove challenging. Without any guidance, schools and districts may choose not to utilize new models.

Many states that allow students to take online courses have criteria in place to approve online providers. Most states, however, have not created similar processes to approve personalized learning providers or models. Increased access to such guidance could encourage schools and districts to implement comprehensive personalized learning models. It might also encourage private-sector providers to invest in developing new models and rigorously evaluating their results. An "approved model" designation could provide a foundation for offering greater flexibility to schools and districts utilizing personalized learning.

PLAY IN ACTION

States and districts could support schools in selecting effective models by independently assessing the claims and track records of different options, identifying those with the strongest evidence and greatest potential, and designating them as approved providers or models. While states are the most likely entity to take on this responsibility, larger districts may find value in identifying a list of approved models, although districts and schools would still be free to use other models.

The approved-model designation could also support policies that provide increased autonomy to schools and districts implementing innovative practices (see Play No. 11) by allowing these entities implementing approved models to automatically qualify for increased flexibility.

After Arkansas passed the Digital Learning Act of 2013, the state Department of Education began to publish an annual list of approved digital learning providers that may partner with schools. Providers must have digital learning material that meets state curriculum standards, and they must demonstrate past success in improving student achievement. Approved providers in 2014 represented a diverse range of entities, including Edgenuity, Arkansas State University, the Crystal Bridges Museum, and Florida Virtual School Global.

IMPLEMENTATION CONSIDERATIONS

To realize the benefits of an approved-model designation, policymakers must navigate some potential pitfalls. States generally have a poor track record of approving effective vendors, as demonstrated by experience with supplemental educational services, comprehensive school reform models, and textbooks. Clear criteria for the approvedmodel designation are crucial to ensure designations set a high bar for quality and are based on actual performance rather than political factors. Criteria should include the model's strengths and weaknesses, past performance, and provider commitment to certain performance measures, which the state or district will monitor.

States and districts should assess a model's past performance when deciding whether to award approved status. However, they should carefully balance the need for evidence of impact with the need to encourage innovation and development of new models. Placing too much value on past performance will exclude all but a handful of established providers potentially shutting out smaller vendors and start-ups. To address this, states may wish to apply multiple levels of designations for models at different stages of development. States might designate models as "effective" if they have been implemented in multiple settings and have rigorous, independent evaluations of their results; or "promising" if they have been implemented in a few places and have produced strong results on state tests and formative assessments. States could

also choose to approve "early stage" models that are just beginning to be implemented in classroom settings. If a state chose to use the approved-model designation to award schools increased autonomy (see Play No. 11), the degree to autonomy may vary between early stage models and other approved models. Similarly, if the state produces report cards on approved models (see Play No. 5), the type of information included might vary based on type of approved model. States or districts could also establish a sliding-scale system in which programs with strong evidence of past success are approved for longer periods of time and after less scrutiny compared with newer models.

States should require all approved models and providers to commit to specific impact goals and performance measures for student performance. Continuation of an approved model's designation should be based on meeting these goals and performance measures—much like charter schools are required to meet specific performance goals before their charters are renewed. The annual report cards on provider effectiveness described in Play No. 5 could help states or districts assess the extent to which providers or models are meeting their goals.

States and districts seeking to establish approved-model designations must also establish processes for evaluating models and providers against the criteria they set, including time lines for application and review. States and districts may utilize their own employees to review models, or they

may outsource this work to independent reviewers with expertise in personalized learning. If a state or district chooses to utilize independent reviewers, it will need to establish clear standards to avoid conflicts of interest and allocate resources to compensate reviewers for their time.

LEGISLATION

Arkansas, Act 1280 (Digital Learning Act)

RESEARCH AND RESOURCES

According to Digital Learning Now, 24 states—including Minnesota, Maine, and Washington—have a clearly defined process for vetting and approving online providers. See more at: http://digitallearningnow.com/ site/uploads/2014/02/DLN_ReportCard_ FINAL 2.pdf

View Arkansas's Approved Digital Provider List, released in March 2014, at: http:// www.arkansased.org/public/userfiles/ Learning_Services/Digital_Learning/DLP_ AR_Approved_List_041414.pdf

The Northeast Comprehensive Center, a consortium of education leaders from four states, is creating a rubric to evaluate online and blended learning programs. Learn more at: http://www.northeastcompcenter. org/regional-online-and-blended-learninginitiative/



PERSONALIZED LEARNING POLICY PLAY #3:

CREATE FUNDING MECHANISMS
FOR SCHOOLS TO COVER ONE-TIME
START-UP COSTS INVOLVED IN
IMPLEMENTING INNOVATIVE MODELS

CONTEXT

Funding limitations can create a barrier for districts seeking to implement personalized learning models. Over time, well-designed personalized learning models should be sustainable using existing public funds, although they will require a shift in how schools and districts allocate resources. In the near term, however, implementing such models often involves one-time start-up costs for technology, infrastructure, and professional development. Many districts and schools may not have sufficient funds in their current-year operating budgets to cover these costs. Except for major capital expenses—such as buildings—schools and districts typically use current-year revenues for investments in instructional materials, professional development, personnel, and design changes. Because they lack mechanisms for spreading these costs across multiple years, many schools and districts view the initial cost of implementing whole-school personalized learning models as an insurmountable barrier.

Statewide innovation grants (see Play No. 1) can help overcome some of these barriers, but states and districts should also consider alternative—or complementary—strategies to help finance initial investments in personalized learning.

PLAY IN ACTION

States can create mechanisms to help schools and districts invest in personalized learning. Districts should consider setting aside funds each year to create a district innovation or R&D pool that individual schools could tap for one-time costs associated with implementing new models. Most private industries consider R&D a core operating expense that is built into annual operating budgets, but R&D expenses have not historically been incorporated into school district budgets, limiting practitioner-driven innovation in education. An innovation or R&D pool would allow districts to collect innovation, technology, or professional

development funds across the district to support concentrated investments in the testing, design, and implementation of highpotential models at individual schools. These schools would serve as R&D laboratories, generating models and lessons that other schools in the district could replicate at lower costs. As a condition of receiving funding, they would agree to share lessons learned with other schools, and open their buildings to other schools and districts that want to learn. To create these pools, districts could either allocate a certain percentage from their overall budget or raise money from private funds or special grants.

Another option is a revolving loan fund, from which districts or schools could borrow at zero or low interest to finance one-time investment or start-up costs. Districts or schools would pay the loan back over a number of years, enabling them to spread the costs of up-front investments over multiple budget cycles. Many states currently utilize revolving loan funds to finance construction or renovation of school facilities, or to provide start-up capital for charter schools. Compared with traditional fixed loans, revolving credit offers a lower interest rate and greater flexibility for schools to adjust the loan amount after approval. This flexibility may be helpful for schools piloting new innovative models, since they often need to make real-time budget changes depending on model or product effectiveness.

Illinois established its School Technology Revolving Loan Program in 1999 to fund technology for classroom instruction. In 2014, 22 districts received loans ranging from \$30,000 to \$400,000. One recipient, River Trails School District, near Chicago, plans to use the loan to improve wireless infrastructure, purchase Chromebooks for student use, and provide educators with professional development.

IMPLEMENTATION CONSIDERATIONS

Districts with an innovation or R&D pool will need to create a process for distributing funds to individual schools. They may wish to create an application process whereby schools provide their rationale for piloting a new model, their plan for developing and implementing the model, and the estimated costs. Schools must also be able to discuss how a new model or product will lead to improved student outcomes. Districts may wish to limit funding eligibility to schools that have demonstrated a certain level of student performance, leadership continuity, and leadership and staff capacity, in order to maximize chances for success.

Policymakers seeking to establish a revolving loan program will need to determine how to structure and oversee such a program. The revolving loan fund may operate as a program within the state department of education (in Illinois, for instance, the State Board of Education operates the School Technology Revolving Loan Program), or the state may decide to provide start-up capital

to a nonprofit organization to distribute and oversee loans (see Play No. 4).

Policymakers must also decide who will be eligible for loans. They may want to open up a revolving loan program to all districts, or they may want to focus on applicants that meet certain criteria, such as a history of serving a substantial percentage of highneeds students, a strong track record of improving student outcomes, or plans to use loans to invest in state-approved models or providers with strong evidence of success (see Play No. 2). States may also want to consider creating an independent advisory board, including financial and personalized learning experts, to vet and approve loans.

In addition, states will need to define the purposes for which funds may be used. Illinois's loan program specifically supports technology hardware and does not allow districts or schools to use funds to support other crucial costs related to personalized learning, such as design consultants, software, and professional development. To maximize the potential impact of loans in supporting innovation, states should consider broadening the purposes for which loan funds may be used.

Policymakers must also consider loans' interest rates and repayment terms. Districts in Illinois that borrow from the School Technology Revolving Loan Program receive a three-year loan with a 2 percent interest rate. Districts make payments twice a year, for a total of six payments. Specific loan

terms in other states will likely depend on a state's budget and financial capacity, as well as the needs of local schools and districts. Rather than dictating the terms themselves, states may wish to give the loan fund's leadership the authority to set terms, within parameters established by policy, or to tie the terms to those of other loans or bonds that public entities may access. States could also choose to vary loan terms based on district need and other factors. For example, districts and schools in high-poverty communities might receive a more favorable rate or repayment terms than those in more affluent communities.

LEGISLATION

Illinois, H.B. 2354 (amendments to the School Technology Revolving Loan Program)

RESEARCH AND RESOURCES

Learn more about the School Technology Revolving Loan Program in Illinois at: http:// www.isbe.net/ed-technology/html/revolving_ loan.htm

A press release with information on 2014 School Technology Revolving Loan Program recipients in Illinois can be viewed at: http:// www.isbe.state.il.us/news/2014/jan9.htm



PERSONALIZED LEARNING POLICY PLAY #4:

ORGANIZATION TO SUPPORT
PERSONALIZED LEARNING IN
SCHOOLS AND DISTRICTS

CONTEXT

In an effort to encourage the development of personalized learning, some state education agencies are establishing a dedicated office focused on innovation (see Play No. 8). Public sector agencies, however, often face political and bureaucratic challenges in fostering innovation, limiting the impact such offices can have. Changes in elected state leadership, for instance, may lead to changes in statewide priorities as well as leadership of the innovation office—undermining the sustainability of personalized learning efforts. State agencies' efforts to support innovation may also be hindered by procurement, personnel, and other policies and systems that make them less nimble or adaptable than nonprofit or private organizations.

Another challenge for state education agencies is that many foundations choose not to fund public sector entities. Even agencies that do receive private funding often face challenges in allocating and targeting funds effectively. In contrast, nongovernment organizations have greater flexibility in deciding how to use philanthropic dollars and which types of initiatives to target with external funding.

PLAY IN ACTION

To sidestep these challenges, a state innovation office or point of contact could incubate or create a nonprofit organization that may be better suited to taking on certain functions that support innovation. This type of independent organization could also leverage public funding by applying for, receiving, and distributing philanthropic funds for public-private partnerships to promote innovation and personalized learning. Independent nonprofits can also serve as advocates for innovation with state policymakers, schools, and districts, working to spur demand for new models. For example, an organization might coordinate "field trips" for policymakers, principals, and civic leaders to visit schools in and outside the state that are implementing personalized learning models, or put together forums where schools and districts interested in personalized

learning can hear from national experts. This type of advocacy is better suited to an independent organization than a state agency.

The Colorado Department of Education helped incubate the Colorado Education Initiative (formerly the Colorado Legacy Foundation) to catalyze bold, comprehensive improvement in public education. Although the state already had an Office of Blended and Online Learning, state officials saw a need for an independent nonprofit organization that could support the state's goal of closing the achievement gap through personalized learning. CEI now works with external groups such as the International Association for K-12 Online Learning, Education Elements, and 2Revolutions to provide tools and resources to schools and districts that want to implement innovative models. District partners include Boulder Valley School District and Denver Public Schools. As an independent organization, CEI has greater flexibility than a state education agency to collaborate with education organizations, foundations, and businesses.

Kentucky has also successfully established a nonprofit organization supporting innovation in schools. In 2013, the state Department of Education created the Fund for Transforming Education in Kentucky (the Fund), a foundation modeled after the Colorado Education Initiative. The Fund is an independent nonprofit that seeks external funding from foundations, corporations, and individuals to support state initiatives, including multiple ones related to personalized learning. The Fund also supports

innovation districts, which receive autonomy from certain state regulations in Kentucky in exchange for committing to implementing innovative practices (see Play No. 11). In addition, the nonprofit will establish an Innovation Fund (similar to the ideas outlined in Play No. 1) to provide teachers and school leaders with three types of competitive grants: research, pilot, and scaling. The review committee that will evaluate applications and make final grant decisions has not been created yet, but it will include members from the Fund and the Kentucky Department of Education, as well as other experts. The Innovation Fund is slated to award initial grants in August 2014.

At the district level, local organizations may partner with school districts to bring innovation to their community. In collaboration with the New York City Department of Education, the Fund for Public Schools secures private funding, fosters public-private partnerships, and invests in and manages promising initiatives related to school reform. The Fund raised just over \$21 million in 2012 to support multiple schoolbased and system-wide efforts, including initiatives related to teacher effectiveness, school leadership, and implementation of Common Core standards.

IMPLEMENTATION CONSIDERATIONS

State policymakers seeking to create an independent nonprofit to support education innovation will need to select an appropriate governance model to enable the nonprofit

organization to operate effectively and align its work with other state efforts. The choice of governance model will determine the nonprofit's level of independence.

If the state intends to make a significant upfront investment in launching the nonprofit, and to provide ongoing appropriations to support its operation, state leaders and taxpayers will likely demand a strong official state role in the organization's governance. Members of the state education agency could sit on the board of the nonprofit, allowing the state to have a clear role in shaping the organization's mission, priorities, and initiatives. The commissioner of the Colorado Department of Education, for instance, is an ex-officio member of the Colorado Education Initiative board of trustees. In addition, a state board member and the lieutenant governor are members of the CEI board, allowing the state to have a clear voice in the organization's work. Similarly, members of the board of the Fund for Transforming Education in Kentucky include the commissioner of the Kentucky Department of Education (exofficio) and the lieutenant governor. Ongoing state financial support could enhance the potential impact and sustainability of the new organization, which could use private funds to leverage state dollars, but could also impact the organization's independence and effectiveness.

Alternatively, state leadership may want to create a more traditional nonprofit organization that does not include any board members selected from state leadership.

Under this structure, the state would simply encourage the creation of the organization and lend the imprimatur of state officials to the organization's efforts to raise private funds. Greater independence may better allow the organization to monitor and publicly discuss the state's successes and challenges in improving educational outcomes, but may also make it more difficult to align the nonprofit's work with state initiatives. One other option might be for state policymakers to provide an initial infusion of funds matched by private funding commitments—to successfully launch a project, and then ramp down state support over time as the new organization builds a track record of success and increases its private fundraising.

RESEARCH AND RESOURCES

Read about the history of the Colorado Education Initiative at: http://www. coloradoedinitiative.org/who-we-are/historyaccomplishments/

Learn more about CEI's work in personalized learning and district partners at: http://www. coloradoedinitiative.org/our-work/nextgeneration-learning/

Read a short press release on the history of the Fund for Transforming Education in Kentucky at: http://education.ky.gov/comm/ documents/r072tekfund.pdf

More information on the Fund can be found at: https://www.thefundky.org/initiatives

Learn more about the Innovation Fund, which will be established by the Fund for Transforming Education in Kentucky, at: https://www.thefundky.org/innovationinitiative



PERSONALIZED LEARNING POLICY PLAY #5:

PUBLISH ANNUAL ACCOUNTABILITY REPORT CARDS ON APPROVED MODELS

CONTEXT

Districts and schools that want to implement personalized learning currently suffer from a deficit of information about effective providers and models. This can make it difficult to choose the best providers or models to meet student needs—and may discourage districts and schools from moving forward with personalized learning strategies. States can help address this information deficit by developing systems to track and publicly report the results produced by providers and models. Current accountability systems provide little transparent information about performance. Even as providers and models play a larger role in delivering education to students, schools continue to bear primary accountability for student achievement results. This imbalance in accountability may make schools and districts reluctant to enter into partnerships with third-party vendors to pilot new technologies and programs, given that they will bear the weight of accountability if the provider's model fails. Because not all providers are equally effective in improving student outcomes, and because their performance may change over time, states should consider establishing metrics to hold providers publicly accountable for their role in student learning outcomes.

PLAY IN ACTION

Schools should continue to bear primary responsibility for student learning results, but state and district policymakers could improve transparency about the impact of different models by publishing annual report cards for each approved provider. States already publish report cards that provide data on student performance—including graduation rates, statewide assessments, and college-readiness metrics—for each school and district in the state. Personalized learning report cards would build on this idea by reporting comprehensive student performance data across all schools working with a specific personalized learning provider or implementing a certain model. School leadership can refer to these report cards when establishing their own models or contracting with a vendor. In addition, states can use these report cards as a tool to assess the overall impact of approved models and to inform decisions about whether providers or models can retain approved-model status (see Play No. 2).

To date, no states have published report cards for personalized learning providers, or for any providers of instructional materials, for that matter. Ohio, however, has an accountability system for career-technical education (CTE) providers that offers a potential model for personalized learning accountability. Under a new system approved in 2013, Ohio publishes report cards for each of the state's 91 Career-Technical Planning Districts, which are consortia of districts that work together to provide career and technical-education services to students from participating districts. Under the new accountability model, each planning district receives a letter grade ranging from A to F based on five measures of student outcomes: academic achievement, graduation rate, postprogram outcomes, federal accountability results, and preparation for success. These grades provide transparent information to the public about the performance of CTE programs in Ohio. The data are also used for program accountability under the Perkins grant program—a federal program that provides funding to CTE programs.

IMPLEMENTATION CONSIDERATIONS

To produce meaningful report cards for personalized learning models or providers, states must first establish an appropriate framework for evaluating their performance. Ohio's report cards for CTE programs include five components with specific metrics to assess student progress. To assess postprogram outcomes, for instance, the state surveys CTE programs about students' postprogram placement and progress toward receiving an industry credential. States creating personalized learning report cards should also consider multiple components of student progress. States will need to identify specific metrics to assess providers on these components and set expectations for insufficient, sufficient, and exemplary progress for each metric. States may wish to tap expertise outside the education agency to help them develop and implement effective frameworks and performance measures, including experts with deep

content knowledge of accountability, student assessment, and digital learning tools and practices. In reporting data to the public, states should also take care to provide appropriate context about the differences in missions and student populations served by different providers, which may contribute to differences in absolute results among providers.

State policymakers will also need to decide if and how they will use report card data. In some states, the annual report cards could simply act as a source of information to guide schools and districts. But other states may wish to use this information to make consequential decisions about providers and models. States with the approved-model designation process described in Play No. 2 could condition continuation of approvedmodel status on how schools and students perform on the report card. States could also decide to prohibit districts or schools from partnering with or using state funds for providers that receive low ratings on the report card for multiple years.

LEGISLATION

Ohio, S.B. 316 (established report cards for career-technical education programs)

RESEARCH AND RESOURCES

Learn more about Ohio's Career-Technical **Education Report Card** at: http://education. ohio.gov/Topics/Career-Tech/CTE-Performance-Data-and-Accountability/ Career-Technical-Education-Report-Card

View the five components that factor into a CTE program's final letter grade at: http:// education.ohio.gov/getattachment/Topics/ Career-Tech/CTE-Performance-Data-and-Accountability/Career-Technical-Education-Report-Card/Understanding-Ohios-New-CTE-Report-Card1.pdf.aspx

For more information on CTE program accountability under the Perkins program, see: http://education.ohio.gov/Topics/ Career-Tech/CTE-Performance-Data-and-Accountability/Perkins-Resources/Career-Technical-Education-CTE-Accountability-Br



PERSONALIZED LEARNING POLICY PLAY #6:

CULTIVATE A
PORTFOLIO
OF PROVIDERS

CONTEXT

In an effort to increase the supply of quality school options that meet families' varied needs, some districts have adopted a "portfolio" approach. Under this model, a school district does not operate all the schools in the district directly. Instead, it cultivates and manages a portfolio of schools that includes both schools run directly by the district and charter schools run by independent nonprofit operators. Parents can choose among the different types of schools in the portfolio. Although the schools are run by a variety of organizations, they are all public schools accountable to the same performance and student learning expectations. Low-performing schools—whether district-run or charters—may be closed for poor performance, in which case their students could select among other schools in the portfolio, or the district may recruit a new provider to replace the closed school.

Over the past decade, several districts, including Denver, Chicago, and New York City, have adopted a portfolio approach. These districts have cultivated a range of traditional public, charter, and innovative district-run options (such as small schools and magnet schools) in response to students' and families' needs.

PLAY IN ACTION

Districts should consider adopting a portfolio approach to increase the supply of personalized learning options for students. These districts would actively cultivate the supply of personalized learning models and providers within their portfolios, much as existing portfolio districts recruit or support replication of charter models to fill gaps and meet identified needs. District portfolios could include a variety of models, from high-quality third-party providers to homegrown personalized learning models, as well as both whole school models and those that support personalized learning in a particular subject area or grade level. A diverse set of

models would increase the range of options available to students and families, while ensuring all schools remain accountable for their performance.

Districts with a portfolio mind-set would also ensure that schools implementing these personalized learning models would be able to gain increased autonomy and flexibility for implementation. This approach could create an attractive option for existing district schools that need increased autonomy to implement innovative models but do not have the capacity to take on the financial and management responsibilities of being a charter school.

Denver Public Schools was an early adopter of the portfolio strategy. Within the DPS system, a school may be one of three types: district-run, charter, or innovation—a school adopting innovative practices, including a personalized learning model. Rocky Mountain Prep, a charter elementary school that is part of DPS's portfolio, takes advantage of the flexibility it receives from state and local policies to implement a blended learning model whereby students rotate among whole group lessons with a teacher, independent work, small group guided practice, and online learning using a computer or tablet. The school assesses student progress every six weeks and gives teachers the data and feedback they need to make instructional decisions about individual students. Because innovation schools are granted autonomy from many state regulations, similar to the autonomy

that charter schools receive, they also have increased flexibility to make significant changes to their curriculum and personnel (see Play No. 11).

In Ohio, the Reynoldsburg City School District successfully adopted the portfolio strategy by minimizing the oversight role of central district administration and granting school leaders increased autonomy over program design and instructional offerings. Reynoldsburg's strategy has enabled some schools to implement personalized learning models. The district's one high school now has four theme-based academies, including eSTEM Academy, which focuses on STEM education. eSTEM Academy partners with Udacity to give students access to statistics, physics, and computer science massive open online courses. Hannah Ashton Middle School, also in Reynoldsburg, launched a blended learning pilot in collaboration with several providers, including Edmodo, Compass Learning, Achieve3000, and Virtual Nerd. Through partnerships with outside providers, the district has increased the variety of educational offerings available to students.

IMPLEMENTATION CONSIDERATIONS

Successful implementation of a portfolio approach for personalized learning involves three key components:

First, districts must put in place mechanisms to grant increased autonomy for personalized learning models within the portfolio.

These mechanisms can include the charter authorizing process and a separate process to grant increased autonomy to existing district schools. To provide increased autonomy to existing schools, districts must define the types of autonomy that schools may receive, as well as the conditions schools must meet to qualify for them. During the application process, school leaders should clearly explain their vision for personalized learning, as well as how increased autonomy would facilitate the implementation of their personalized learning model. Districts could extend this approach to include schools seeking autonomy to implement other innovation strategies designed to increase student achievement.

Second, districts must establish an accountability mechanism to measure the performance of all schools in the portfolio-including traditional district, charter, and autonomous personalized learning schools. A performance evaluation framework will allow districts to assess the quality of providers in the portfolio. Denver Public Schools, for instance, has established a common School Performance Framework to assess all three types of schools district-run, charter, and innovation—in its portfolio. Low-performing schools are subject to increased district supervision and decreased autonomy over school planning and instruction; in cases of sustained and significant low performance, they may be closed and replaced by another school or provider.

Finally, schools need a strategy to actively recruit and cultivate the supply of personalized learning models in the district. This approach should include strategies to partner with third-party providers that can support schools as they design and implement personalized learning models, as well as assistance for schools developing their own models. Districts can help schools working with external partners by actively recruiting providers with a successful track record, as well as by carefully vetting potential partners. Districts could cultivate the creation of homegrown models by providing financial resources and centralized capacity to support schools in designing and implementing personalized learning models.

While districts must take the lead in creating portfolio models, states can support this approach by allowing districts to apply for waivers of state policies on behalf of schools within their portfolios. A more ambitious approach would be to create a formal "portfolio district" designation that would allow districts to grant schools in their portfolio flexibility from specific state, as well as district, policies, contingent upon performance.

CONTACT FOR ADDITIONAL INFORMATION

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RESEARCH AND RESOURCES

The Center for Reinventing Public Education has several resources related to the **portfolio strategy** at: http://www.crpe.org/research/ portfolio-strategy

Joe Siedlecki describes seven actions that districts must take to establish a portfolio model at: http://www.msdf. org/blog/2012/11/portfolio-schools-acomprehensive-approach-to-districtimprovement/

Robin Lake and Paul Hill discuss the capacities that districts must develop to implement a portfolio strategy at: http://files. eric.ed.gov/fulltext/ED532895.pdf

Independence Institute wrote a report on the rise of blended learning in Colorado. The report is available at: http://education. i2i.org/wp-content/uploads/2013/07/IP-5-13-Kafer-Blended-Learning-Web.pdf

A profile of Reynoldsburg City School District, in Ohio, can be found at: http:// edexcellence.net/ohio-policy/gadfly/2013/ april-8/limitless.html

Learn more about organizations partnering with Reynoldsburg City School District at: http://gettingsmart.com/2013/02/ reynoldsburg-schools-attracting-ravereviews/

More information on eSTEM Academy, in Ohio, is available at: http://gettingsmart. com/2013/01/re-imagining-high-school-withmoocs/

A profile of Hannah Ashton Middle **School,** in Ohio, is available at: http://www. christenseninstitute.org/hannah-ashtonmiddle-school/

A discussion of oversight and accountability in portfolio districts can be found at: http:// www.msdf.org/blog/2013/10/wild-westor-responsible-oversight-portfolio-schooldistricts/

Learn about Denver's School Performance Framework at: http://spf.dpsk12.org/



PERSONALIZED LEARNING POLICY PLAY #7:

SUPPORT THE DEVELOPMENT OF DISTRICT CONSORTIA TO FOSTER PERSONALIZED LEARNING IN SMALL OR RURAL COMMUNITIES

CONTEXT

Personalized learning models can offer real benefits to students in small or rural districts, but these districts may lack the resources to develop and implement personalized learning on their own. Districts in rural areas may also have fewer opportunities to learn about new innovations or access external expertise than districts in urban and suburban areas. Without policy action to address these barriers, students in small and rural districts may have less access to personalized learning than their peers in larger or more urban districts.

Over the past decade, many education reforms have focused on improving outcomes for students in high-poverty urban communities. Rural communities have received less attention, even though many rural schools and districts also have high concentrations of low-income or otherwise at-risk students. As more schools move to implement personalized learning, district and state policymakers should take action to ensure that rural students are not left behind.

PLAY IN ACTION

Regional consortia have the potential to help small or rural districts and schools take advantage of personalized learning by creating a mechanism through which they can pool resources and work together to develop, implement, support, and learn from personalized learning models.

The New England Secondary Schools Consortium offers one example of the potential of such consortia. Through NESSC's League of Innovative Schools, high schools in five partner states—Connecticut, Maine, New Hampshire, Vermont, and Rhode Island—exchange best practices for school improvement and innovation. Educators from participating schools visit other schools to observe new models, participate in professional development, and receive coaching. This type of exchange allows educators to discuss new developments in online courses, customized learning plans, and community-based learning; glean insights from other schools' and districts' experiences; and leverage resources across multiple districts or schools.

The League of Innovative Schools connects educators from multiple states, but regional consortia can also operate within a single state. The Wisconsin eSchool Network began in 2002 as a partnership between the Appleton Area School District and the Kiel Area School District, two rural districts in northeastern Wisconsin. Since then, the

network has grown to become an independent nonprofit organization that works with 20 Wisconsin school districts using the same online learning platform. By pooling resources, districts have increased purchasing power to create online learning experiences for students. In 2012, the network also became a partner in the Wisconsin Digital Learning Collaborative, which was established to increase student access to for-credit online and blended learning opportunities.

IMPLEMENTATION CONSIDERATIONS

While district- and school-level leaders must make the choice to create or join such consortia, states can support these efforts in a variety of ways. States that choose to establish innovation fund competitions (see Play No. 1) could encourage small and rural districts to enter these competitions as regional partnerships. Ohio, for example, encouraged districts that applied for Straight A Fund grants to apply as consortia or partnerships. The Ohio Appalachian Collaborative Personalized Learning Network, a consortia of 27 rural school districts, received \$15 million—the largest Straight A grant—to increase access to blended learning and dual-enrollment programs among students in member districts.1 Allowing schools or districts to enter competitions as consortia can help level the competitive playing field for smaller districts that might otherwise lack the resources to prepare a successful application,

The Ohio Appalachian Collaborative was formed in 2010 by 21 school districts seeking Race to the Top funding. Twenty of those districts joined the Ohio Appalachian Collaborative Personalized Learning Network to apply for Straight A funding. See: http://blogs.edweek.org/edweek/rural_education/2013/12/ohio_collaborative_wins_15m_to_advance_personalized_learning.html

and increase the impact of state funds by spreading innovations—and costs—across multiple districts. To ensure the effectiveness of such partnerships, states should require each consortium applicant to explain how participating schools and districts will collaborate with one another to increase student access to personalized learning.

District consortia that are created for other purposes—such as achieving cost efficiencies or providing vocational education services across a network of districts-may also serve as a vehicle for collaboration around personalized learning. As New Jersey works toward increasing its readiness for statewide online Partnership for Assessment of Readiness for College and Careers (PARCC) assessments, the state Department of Education has started encouraging districts to form regional consortia. By working together, districts can purchase Internet access and other technology services at a price potentially lower than what would be offered to an individual district. These same collaborative partnerships could also enable districts to collaborate to design personalized learning models or contract with external providers.

Intermediate or regional school districts, such as the Boards of Cooperative Educational Services (BOCES) districts in New York, could also play a role in supporting district collaboration. BOCES districts share educational services and programs, particularly in areas such as career and technical education and special education. States could amend the legislation that authorizes BOCES and other intermediate districts to include support for personalized learning.

Finally, states should review existing policies to ensure they do not create any barriers to this type of collaboration across districts.

CONTACT FOR ADDITIONAL INFORMATION

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Mark Kostin, New England Secondary School Consortium: mkostin@greatschoolspartnership.org

RESEARCH AND RESOURCES

For more information on the Wisconsin eSchool Network, see: http://www. wisconsineschool.com/

An Education Week article describing collaboration among school districts in the Wisconsin eSchool Network is available at: http://www.edweek.org/ew/ articles/2012/03/15/25collab.h31.html

An overview of Ohio's Straight A Fund competition can be found at: http:// education.ohio.gov/Topics/Straight-A-Fund

The **New Jersey** Department of Education released a memo describing the state's progress toward achieving PARCC readiness and the value of regional consortia in purchasing technology services. View the memo at: http://education.state.nj.us/ broadcasts/2014/JAN/28/10823/PARCC%20 UPDATE%20MEMO.pdf



PERSONALIZED LEARNING POLICY PLAY #8:

CREATE A
STATE OFFICE
OF INNOVATION

CONTEXT

Integrated personalized learning models simultaneously address issues of curriculum, human capital, technology, and student progress. As a result, a wide range of state policies—from school choice to accountability to assessment to teacher licensure—have the potential to create barriers or opportunities for these models. State policies in each of these areas are typically developed in separate silos, however, meaning that schools, districts, and providers may find themselves negotiating a web of multiple offices, programs, and regulations in order to implement personalized learning models. As more schools and districts move toward these models, states must also build their capacity to integrate personalized learning across other education initiatives, such as Common Core State Standards, school improvement, and educator evaluation.

PLAY IN ACTION

States can reduce barriers to personalized learning by creating a single point person or office focused on innovation within the state education agency. This individual or office could serve as a point of contact for innovative schools, districts, and providers, and work across different parts of the agency to eliminate personalized learning obstacles. In addition, they could convene and support groups of schools and districts engaged in cutting-edge work, to help them share best practices and lessons learned and to increase the state's understanding of what schools and districts are doing with personalized learning.

Tennessee's Office of Personalized Learning oversees online and blended learning models within the state. It recently launched the Innovative Educator Network, a group of 50 high-performing Tennessee educators who will meet with leading practitioners in personalized learning, participate in a structured planning process, and implement personalized learning models in their own schools. Tennessee also intends to establish a Personalized Learning Advisory Council, which will be composed of 10 members working within the state's public education system. Council participants will learn about national best practices related to personalized learning and support the Office of Personalized Learning in creating a long-term strategic plan. Other states can take a similar approach by creating an office of innovation that works with a wide network of educators, who will implement personalized learning at the local level and disseminate information and best practices across the state.

New Jersey recently reorganized its Department of Education to create new offices and positions, including a Chief Innovation Officer role. The Chief Innovation Officer oversees multiple initiatives, including building a network of innovation partners and identifying strategies to reallocate dollars from existing funds to personalized learning initiatives.

Large districts may also want to consider creating a separate office focused specifically on promoting innovation. In 2010, New

York City established the Innovation Zone (iZone) to support personalized learning at the school, provider, and systems level. The iZone has partnered with many external providers, such as New Classrooms, Achieve3000, and Discovery Education, to create personalized learning experiences for students in nearly 300 schools across the city. It also launched the Blended Learning Institute with Pace University to train teachers in integrating technology into the classroom, and it has supported the education technology sector in New York City through its "Gap App Challenge," which invites software developers to submit apps, games, and programs that improve math outcomes among middle school students. Although the iZone was created at the district, rather than the state, level, and has received reduced support under the current mayoral administration, it provides an illustrative example of a public sector office that promotes school innovation by partnering with multiple stakeholders.

IMPLEMENTATION CONSIDERATIONS

State education agencies that want to establish an innovation office must be thoughtful in defining the office's role. It must be fully integrated into the agency so that it can work collaboratively with other offices, including those focused on academic standards, student assessment, teacher performance, and budget coordination. Full integration will allow the innovation office to serve as a champion for innovative practices across all divisions.

At the same time, the office must maintain a culture of innovation and flexibility. It must be able to respond nimbly and resourcefully to a rapidly evolving personalized learning landscape. Staff should understand their mission as helping to create a context for innovation—not as monitoring compliance or imposing mandates on schools and providers. Conditions that foster innovation will make states more appealing to high-quality providers and partners than those with less favorable conditions. To cultivate this mind-set, states may wish to recruit external talent from the private and nonprofit sectors, as well as innovation-minded staff from within the state education agency. Recruiting a mix of internal and external talent will lead to a staff with the right expertise and orientation, as well as a deep understanding of how the state education agency works.

Because the public sector faces inherent political and bureaucratic limitations to fostering innovation, policymakers may want to consider establishing a nonprofit organization that will support schools and districts implementing personalized learning (see Play No. 4).

CONTACT FOR ADDITIONAL INFORMATION

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RESEARCH AND RESOURCES

Learn more about Tennessee's Office of Personalized Learning at: http://tennessee. gov/education/districts/district support/ personalized_learning.shtml

In Marcy 2014 the **Tennessee** State Department of Education released a request for proposals for support for its Innovative Educator Network. View the RFP, which provides details about the network, at: http://tn.gov/generalserv/cpo/sourcing_sub/ documents/Solicitation33150-02114 Amendment3.pdf

Details on New York City's iZone Blended Learning Institute can be found at: http://izonenyc.org/?project=blendedlearning-institute



PERSONALIZED LEARNING POLICY PLAY #9:

CREATE GREATER FLEXIBILITY IN CLASS CONFIGURATIONS AND IN HOW SCHOOLS ALLOCATE AND USE STAFF RESOURCES

CONTEXT

Many innovative learning models allocate human capital in new ways to personalize instruction and better meet students' needs. A variety of existing policies, however, may constrain the ability of schools and districts to use human capital in different ways. Class size policies, for example, may limit schools' and districts' abilities to implement personalized learning models that place students in larger groupings for part of the school day in order to allow for small group or individualized instruction at other times. Some states also have policies that require students to be under the constant supervision of a certified teacher, making it difficult for schools to experiment with staffing patterns whereby paraprofessionals supervise students working with technology. Schools and providers also cite inflexible funding tied to specific staffing positions as a barrier to implementing personalized learning models.

Beyond creating outright barriers to organizing schooling in new ways, these policies also limit schools' and districts' ability to shift resources to support personalized learning. Some alternative staffing configurations might reallocate human capital costs, freeing up funds that could be put toward one-on-one or small group time, new technology investments, or higher teacher salaries. Locking schools into specific staffing configurations prevents them from reallocating funds in this way.

Some providers and charter school networks have created innovative models that redesign classrooms and staffing patterns. For instance, New Classrooms changes classroom layouts by creating multiple learning stations within one physical space. Over a single class period, as many as 200 students may rotate among the stations, which employ different instructional approaches such as small group collaborative work, individual online tutoring, and teacher-led instruction. At Rocketship Education charter schools, students spend part or all of their day in large open spaces where they rotate through traditional large group instruction, online learning activities, small group instruction, team learning, and targeted intervention. Up to 115 students may be in the same classroom with both certified teachers and paraprofessionals. Reconfiguring staffing in this way allows Rocketship to pay its teachers significantly more than it could if it used a traditional model.

PLAY IN ACTION

Because the nature of these barriers varies from state to state and district to district, policymakers should carefully review existing policies to identify rules or assumptions about staffing that may limit schools' ability to implement personalize learning models. Depending on the nature of these barriers, states may either change their policies or offer waivers to districts implementing personalized learning (see Play No. 11).

Some states, such as Texas, California, and Georgia, have already relaxed class size requirements by allowing school districts to apply for waivers. Although these waivers were originally created in response to budgetary pressures, some schools and districts have taken advantage of them to implement personalized learning models. Milpitas School District, in California, used a waiver to shift from single-grade classrooms to fluid, multi-age groupings based on the needs of the students as indicated by regular formal and informal assessments. This allows teachers and principals to customize students' learning experiences using a combination of small group, one-on-one, and project-based learning with computer-based instruction.

The requirement a certified teacher supervise students for the entire school day also poses a barrier to personalized learning models. Paraprofessionals or other noncertified personnel may be able to adequately supervise students during the part of the day when they are receiving technologyenabled education, as many models call for. Allowing schools that use personalized learning models to apply for waivers of this requirement may encourage them to use staff resources creatively to achieve cost savings or optimize use of available resources.

Some states and districts also employ formulas that base school funding on specific assumptions about staffing levels or require schools to use funds for specific goods and services. These funding formulas may act

as a barrier to implementing personalized learning models, because they rely on the assumption that schools need specific staffing positions or resources—and schools must use funds in the prescribed way or risk losing them. To implement personalized learning models, schools may need to use resources in different ways.

Rather than allocating funding based on specific assumptions about school expenditures, states and districts should move toward models that distribute funds to schools on a per-pupil basis, adjusted to take into account student characteristics that may affect learning (for instance, specialeducation needs or low-income status). Several states and school districts have adopted Weighted Student Funding models, which provide schools with a set amount per pupil they serve—with additional increments for low-income, English-language-learning, special-education, and other high-need students-and allow them to choose how to use these funds to achieve student learning outcomes. California's Local Control Funding Formula, enacted in 2013, enables districts to use funds in more flexible ways to meet student needs. Previously, California allocated funds to schools using a complicated formula that required much of the funding to be spent on specific items or activities. Under the new model, local districts have control over how to spend funds, but they must engage educators, families, and the wider community to create a Local Control and Accountability Plan that addresses eight state priorities,

including improving student achievement and ensuring college and career readiness.

In some schools and districts, however, class size limits are maintained as a matter of habit rather than requirement. In these places, school and district leaders must recognize the flexibility that they have regarding class sizes and staffing configurations, and be open to thinking creatively about how to deploy existing resources.

IMPLEMENTATION CONSIDERATIONS

Changes to class size policies may meet political resistance; small classes are popular with teachers and families. Research does support a correlation between small class size and student achievement from pre-K through third grade. Disadvantaged students, in particular, may benefit from much smaller class sizes than are standard in many schools today. But many state and district class size limits extend beyond the grades for which evidence supports limiting class sizes, or cap class sizes at numbers far above the levels (typically 13–17 students) that research indicates benefit disadvantaged students. States and districts may wish to maintain smaller class sizes for pre-K through third grade while lifting limits in other grades. Another option states and districts may consider is setting limits on average class size across a school. A school that is allowed to have an average class size of 25 would not need to limit all classes to 25 students. Instead, it could establish some

larger classes—perhaps a blended learning classroom, similar to Rocketship's Learning Lab—as long as other classes are small enough to maintain the average.

States and districts that choose to allow greater flexibility in staffing or class configurations in order to promote personalized learning should clearly explain the rationale and benefits of the change to parents and other stakeholders. Smaller class sizes are popular, in part, because parents believe that their children get more personalized attention when there are fewer children in the room. Policymakers will need to explain to parents and the public how relaxing class size limits can open the door for new approaches that actually enable students to receive even more personalized attention.

More broadly, states that provide waivers to allow for more local control over staffing configurations and funding will need to have robust accountability mechanisms in place. Districts and schools that take advantage of this flexibility must show that they are using personalized learning models and must be held accountable for student performance. States may wish to limit eligibility for waivers to schools and districts that meet at least a minimum threshold for student performance; waiver agreements should set clear expectations for the level of performance a school must demonstrate to maintain its waiver.

LEGISLATION

Texas, TEC Statute 25.112 (maximum class size exceptions)

Georgia, O.C.G.A. Statute 20-2-182 (maximum class size exceptions)

California, A.B. 97 and S.B. 91 (Local Control Funding Formula)

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RESEARCH AND RESOURCES

New Classrooms works with schools to redesign classrooms and implement personalized learning models. See: http:// www.newclassrooms.org/reimagine.html

For a discussion of Rocketship's blended learning model, see: http://www.edweek. org/ew/articles/2014/01/21/19el-rotation. h33.html

For information on class size flexibility policies in Georgia, see: http://www.gadoe. org/External-Affairs-and-Policy/Policy/ Documents/Class%20Size%20Information.pdf

Milpitas School District applied for a waiver in California to increase class sizes in personalized learning classrooms. See: https://www.edsurge.com/n/2014-01-07what-makes-milpitas-a-model-for-innovation

A copy of the waiver request that Milpitas School District submitted can be viewed at: http://www.cde.ca.gov/be/ag/ag/yr13/ agenda201301.asp

Prince George's County, in Maryland, and Charlotte-Mecklenburg, in North Carolina, have made strategic decisions around class size reductions based on research findings. See more at: http://bellwethereducation.org/ wp-content/uploads/2010/11/Bellwether_ Conflicting-Missions-Unclear-Results.pdf

Governor Haslam's proposal to revise average class size restrictions in Tennessee met opposition. See more at: http:// www.newschannel5.com/story/16941337/ governor-haslam-abandons-tennessee-classsize-proposal

An advisory council created by the Minnesota legislature noted that increased flexibility in class size would expand student access to online and blended learning. See more at: http://education.state.mn.us/MDE/ Welcome/AdvBCT/OnlineLearnAdvCoun/

Currently, seven states employ formulas that fund schools based on the number of **staff positions** within the school. For more information, see: http://www.ecs.org/ clearinghouse/01/02/86/10286.pdf

To learn more about districts employing weighted student funding formulas, see: http://www.edweek.org/ew/ articles/2012/06/13/35weighted.h31.html

For an overview of California's Local Control Funding Formula, see: http://www.cde. ca.gov/fg/aa/lc/lcffoverview.asp

For overviews of studies on class size reduction, see: http://www.brookings.edu/~/ media/research/files/papers/2011/5/11%20 class%20size%20whitehurst%20 chingos/0511_class_size_whitehurst_ chingos.pdf

http://www.aera.net/Portals/38/docs/ Publications/Class%20Size.pdf



PERSONALIZED LEARNING POLICY PLAY #10:

MODIFY TEACHER EVALUATION FRAMEWORKS TO FOSTER THE COLLABORATIVE TEACHING THAT OCCURS IN PERSONALIZED LEARNING CONTEXTS

CONTEXT

More than 35 states have established new educator evaluation policies requiring evaluations to include evidence of impact on student learning. While these policies are based on an admirable goal—improving teacher effectiveness—they also reflect assumptions about how schools are organized that do not always apply in personalized learning contexts. Many of the new evaluation systems assume that each teacher is responsible for teaching a certain subject to a specific, identifiable group of children, and that a single teacher is accountable for each child's learning in a given subject. Students participating in personalized learning models, however, may receive instruction in the same subject from multiple educators. For example, a student may receive math instruction by rotating among different modalities such as face-to-face instruction with a lead educator, instruction with an online educator, and online practice under the guidance of a paraprofessional. As a result, this student's learning gains may not clearly map to an individual teacher.

Further, many state and district evaluations include formal observations of teachers' classroom practice—such as Charlotte Danielson's Frameworks for Teaching—that were designed for use in traditional classrooms using whole group instruction, and may not reflect effective practices in the kind of one-on-one and small group learning contexts that predominate in personalized learning settings.

This disconnect can create a challenge for schools seeking to implement personalized learning models. Without careful policy design, the mandate to incorporate student learning in individual teacher evaluations could present a barrier to implementing personalized learning models.

PLAY IN ACTION

States and districts should provide flexibility for new models of educator evaluation that include appropriate metrics of impact on student learning in personalized learning contexts. Most states are building evaluation systems that include multiple measures of educator performance, including student learning outcomes, classroom observations, and, in some cases, peer or student surveys. States and districts should ensure that the multiple measures used in educator evaluation systems are broad enough to include appropriate indicators of teacher effectiveness in personalized learning contexts. Because blended learning models leverage technology to regularly collect data on student progress, these models produce a wealth of real-time data on teachers' impact on student learning that could be included in evaluations, as appropriate to the model used in a particular school.

States and districts could also create policies that allow a student's or a group of students' progress to be attributed to multiple educators, rather than to a single teacher of record. In 2013, New Hampshire released a model teacher evaluation system that allows for "shared attribution" of student academic growth. Under this model, schools may decide whether a student's results on state assessments should be shared among multiple educators. This type of system has a precedent in policies that require teacher evaluation systems to include school-wide student growth as a component of teachers'

evaluations. Nevada is one state that requires each teacher's evaluation to include school-wide student growth.

IMPLEMENTATION CONSIDERATIONS

Many existing state teacher evaluation policies already give local districts and schools flexibility to implement models that incorporate formative measures of student learning or hold groups of teachers collectively responsible for the learning outcomes of a group of students. In these states, districts simply need to be creative in taking advantage of the flexibility already in the laws. States can also help schools and districts by issuing guidance that explicitly addresses the application of teacher evaluation policies in personalized learning contexts.

If existing state policies create a barrier to innovative approaches for evaluating teachers in personalized learning settings, policymakers have two options: change the policies, or offer waivers to districts and schools implementing personalized learning models. Because many states have recently reformed their educator evaluation systems and these policies are controversial in some states, policymakers may prefer a waiver approach over reopening teacher evaluation policies at this point in time. If policymakers choose to offer waivers to schools using personalized learning models, these waivers should include clear parameters to ensure that the schools and districts

receiving them continue to include appropriate measures of student learningat either an individual or a group level—in their teacher evaluations.

In addition, schools and districts that apply for waivers should be required to explain how their evaluation systems will address several key design questions. For example, schools and districts that attribute students' learning gains to multiple teachers will need rules and policies for doing so. A simple option might be to hold all teachers in schools, grades, or subjects that implement personalized learning models collectively responsible for the progress of students in those schools, grades, or subjects—as is already the case in states that include school-wide growth as a component of teacher evaluations. While these models would be simple to implement—and may have the benefit of encouraging collaboration among groups of teachers they have also encountered opposition from teachers in some states, who feel it is unfair to hold them accountable for learning results of students with whom they do not work directly.

Alternatively, schools and districts could design systems that hold teachers accountable for learning gains of only those students with whom they work directly over the course of the year. Such systems could hold all educators working with one student equally responsible for that student's progress, or assign educators a weight according to the amount of time they spend with the student over the course of the year. Either approach would require schools and districts to establish systems for tracking which teachers in personalized learning models work with which students. Schools would also need to define the minimum amount of time a teacher would have to spend working with a particular student for that student's results to factor into the teacher's evaluation.

States should allow schools and districts that receive waivers for new evaluation systems to decide for themselves how to address these design questions. But states should track these decisions in order to learn from the design choices that different schools and districts make. States should also track evaluation data in schools and districts receiving waivers so that policymakers understand how these results compare with those produced by other evaluation systems in the state, as well as how they vary based on the design choices that schools and districts make.

Revising classroom observation rubrics to appropriately reflect teacher performance in personalized learning environments is a more complex challenge. Because personalized learning models are relatively new, there is limited research on what effective instruction looks like in these settings. States and districts should consider creating or joining consortia in order to work with instructional

experts and researchers who can provide insight into which practices are crucial to supporting student learning in personalized learning contexts. In addition, evaluators will need training on how to use existing rubrics appropriately in personalized learning contexts.

CONTACT FOR ADDITIONAL INFORMATION

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Mark Kostin, Great Schools Partnership: mkostin@greatschoolspartnership.org

RESEARCH AND RESOURCES

A Bellwether report discusses **unintended** consequences of teacher evaluation systems. To view the report, visit: http:// bellwethereducation.org/wp-content/ uploads/2012/09/Teacher-Quality-Mead-Rotherham-Brown.pdf

For a discussion of how blended learning models can be integrated into evaluation systems, see: http://gettingsmart. com/2013/07/carving-a-place-for-blendedlearning-in-the-era-of-teacher-evaluation/

The New Hampshire Department of Education released a report with an overview of its **model evaluation system** created by the Phase II New Hampshire Task Force for Effective Teaching. See: http://www. education.nh.gov/teaching/documents/ phase2report.pdf

For slides from a U.S. Department of Education webinar on the use of schoolwide growth in teacher evaluation, see: http://www2.ed.gov/admins/lead/account/ growthmodel/ntgswebinar14262013.pdf

For a discussion of the first year of implementation of a revised evaluation system in Tennessee, see: http://www2. ed.gov/programs/racetothetop/communities/ tle2-year-1-evaluation-report.pdf

For more details on the IMPACT evaluation system in Washington, DC, see: http:// dcps.dc.gov/DCPS/In+the+Classroom/ Ensuring+Teacher+Success/ IMPACT+(Performance+Assessment)/ IMPACT+Guidebooks



PERSONALIZED LEARNING POLICY PLAY #11:

PROVIDE AUTOMATIC WAIVERS FROM CERTAIN POLICY PROVISIONS FOR SCHOOLS IMPLEMENTING APPROVED PERSONALIZED LEARNING MODELS

CONTEXT

Traditional public schools are held to many state regulations that limit their ability to pursue personalized learning models. Some models call for changes—including flexibility around or removal of seat-time requirements (see Play No. 12), variations in staffing configurations, and a mix of larger class sizes with smaller groupings—that may not be allowed under some states' laws. In contrast to public schools, charter schools receive automatic waivers from certain state regulations and district policies. These waivers give charter schools much greater flexibility than traditional public schools to make their own hiring, salary, curriculum, and assessment decisions. Such flexibility also enables them to pursue innovative instructional models for students. Charter schools that have used increased autonomy to create personalized learning models include Rocketship, Summit, and Ingenuity Prep.

PLAY IN ACTION

States can offer broad waivers, similar to the ones charter schools receive, to public schools seeking flexibility from multiple district and state regulations. Rather than apply for separate waivers in a piecemeal fashion—assuming that these waivers even exist in the state—public schools seeking to implement personalized learning models could apply for a broad waiver that gives them autonomy from many state regulations. Such waivers would make it much easier to implement personalized learning models, evening the playing field between public and charter providers when it comes to personalized learning.

A couple of states have started granting increased autonomy to traditional public schools that commit to implementing innovative models and being held accountable for student outcomes. Under the 2008 Innovation Schools Act in Colorado, schools developing innovative practices may apply for varying degrees of autonomy from district and state regulations. As of January 2013, 37 schools in four districts serving nearly 20,000 students had been designated Innovation Schools. These schools have been able to request waivers from state and district regulations related to the length of the school day and year, personnel (including salaries, evaluation, and hiring and termination policies), budget, curriculum, and assessments.

Florida's Innovation School of Technology program, established under a 2013 law, also allows schools that adopt a school-wide blended learning model to become innovation schools and receive the same autonomy given to charter schools in the state.

IMPLEMENTATION CONSIDERATIONS

Policymakers face several design considerations in drafting waivers for schools that implement personalized learning models. First, they need to define which schools should be eligible for such waivers. Any school in Colorado may apply for innovation status if school leadership provides evidence of support for this change from administrators, teachers, and parents. A local board can also apply

for all schools in the district, or a certain group of schools within the district, to become an Innovation School Zone. In Florida, policymakers have restricted eligibility so that only high-performing districts are eligible to apply to create an Innovation School of Technology. The state also caps the maximum number of such schools allowed in each district.

Policymakers will also need to determine the policies and regulations that will be automatically waived for innovation schools. They may choose to define a common set of policies that will be waived for all schools seeking innovation status, or require schools to specify in their application which policies they would like waived. Colorado uses a two-step process to grant waivers from district and state regulations. A school submits an initial application to the local school board. If the board approves the application, the school is granted flexibility from the district waivers it has specified in its application. If the school also wants autonomy from state regulations, the state Board of Education must review and approve the application. In Florida, the process is more streamlined. An eligible school district applies to the State Board of Education to operate an Innovation School of Technology. Once the board approves the school, it receives exemptions similar to the ones charter schools receive in Florida.

To successfully establish a waiver program, states will need to create accountability standards whereby innovation schools provide evidence on the effectiveness of their instructional models and practices. In Colorado, local school boards review each innovation school every three years to evaluate student performance. If a board finds a school's performance unacceptable, the board can revoke the school's innovation status. Innovation schools in Florida are held accountable through annual performance reports they provide to the State Board of Education and the Florida Senate. If a school is categorized as a low-performing one for two years (by receiving an F grade) or no longer meets the criteria for a district innovation school, it will lose its status and charterlike autonomy.

LEGISLATION

Colorado, S.B. 08-130 (Innovation Schools Act)

Florida, Statute 1002.451 (District Innovation School of Technology Program)

Kentucky, H.B. 37 (established Districts of Innovation)

RESEARCH AND RESOURCES

For more information on innovation schools in Colorado, see: http://www.cde.state.co.us/ choice/innovationschools

For a list of waivers commonly requested by innovation schools in Colorado, see: http://www.cde.state.co.us/sites/default/ files/documents/choice/download/sb130/ innovationguidanceappendixbwaivers.pdf

View a list of Districts of Innovation in Kentucky at: http://education.ky.gov/school/ innov/pages/districts-of-innovation.aspx



PERSONALIZED LEARNING POLICY PLAY #12:

WAIVE OR ELIMINATE SEAT-TIME REQUIREMENTS TO ENABLE IMPLEMENTATION OF COMPETENCY-BASED LEARNING MODELS

CONTEXT

Most schools and states award students credit toward graduation or grade advancement based on completion of "seat time," or actual hours spent in the classroom. This practice reflects an outdated assumption that students learn at the same pace and that the amount of time needed to complete a course should be standardized. In reality, students may not need the same amount of time: some students may be able to master content quickly, while others may need more time than standardized courses provide.

Rather than holding time constant and allowing learning outcomes to vary—as traditional models do—some schools are experimenting with new models that vary the time students spend in a course or grade so that all students can achieve proficiency. These models can be particularly helpful for "over-age and under-credited" students who are behind on earning credits toward a high school diploma and need access to accelerated learning opportunities in order to graduate within a reasonable time frame. They can also benefit advanced students who may be ready to tackle content above their current grade level. But traditional seat-time requirements may pose a barrier to these innovative models. In addition to general seat-time requirements, some states and districts have established policies—such as a mandate that all eighth graders take algebra—that require students to complete certain courses at certain times. These requirements are in direct conflict with personalized learning models. Seat-time requirements also pose a barrier to personalized learning models that call for instructional time outside of school. For instance, students in some blended learning programs may receive instruction using computers at home or at a library. Students who enroll in dual-credit programs or participate in project-based learning opportunities may also spend less time in a school setting.

PLAY IN ACTION

States can eliminate these barriers by offering seat-time waivers to districts and schools that seek to implement personalized learning opportunities. These waivers would allow schools to award credit based on content mastery rather than seat time. To receive a waiver, schools and districts would have to demonstrate that they have a rigorous and valid way to assess students' competency, as well as clear criteria for awarding credit.

Creating these waivers would allow more schools and districts to implement innovative personalized learning models. Colorado's Adams 50 district has developed a standards-based system in which students are grouped together according to skill level rather than age or grade. Students advance to the next academic level after demonstrating proficiency at their current level. Meanwhile, students in Lindsay Unified School District in California, while still grouped by grade level, are also grouped by content level and can progress to the next level before the end of a semester.

The majority of states give districts and schools some flexibility to award credit to students based on content mastery rather than seat time. As of 2013, 29 states allow districts to choose seat time or another measure to award credit, 10 states allow the use of other measures under certain circumstances, and one state had abolished seat-time requirements entirely.

Michigan, for example, allows districts to waive the minimum hours and days of pupil instruction if students participate in online or blended learning programs approved by the state. States that want to go beyond seattime waivers can require districts to have multiple credit pathways, including ones that award credit based on content mastery. Under Ohio's Credit Flex program, districts must implement multiple pathways—such as online courses and internships—for high school students to earn credit.

In 2005, New Hampshire, a national leader in competency-based education, moved beyond waivers to become the first state to abolish seat-time requirements altogether. Instead, the law requires all districts to establish policies so that students earn credit by demonstrating mastery of required competencies at the course level. Vermont and Maine have also made progress by implementing graduation requirements based on student proficiency in certain content areas.

IMPLEMENTATION CONSIDERATIONS

As states relax seat-time requirements, they must establish other quality-control mechanisms to ensure students are truly achieving competency before receiving credit for a subject. While seat-time requirements are a poor way of ensuring that students receive a quality education, they do provide protection against some potential abuses. To limit potential for abuse, states should either develop rigorous statewide measures and indicators of student knowledge and content mastery, or require districts, schools, and providers to demonstrate that they have valid and rigorous mechanisms for assessing student competency.

States should also identify any financial barriers to implementing competencybased systems. Districts may have little incentive to establish these systems if they will receive less funding for advanced students who progress through high school requirements in fewer than four years, so secondary schools whose enrollment declines as a result of the progression of advanced students should not be penalized.

In addition, districts seeking to move away from seat-time requirements must be able to provide assurance to high school students that competency-based credit will be accepted by higher education institutions. States can address this concern by requiring public institutions of higher education to accept high school credits awarded by schools with stateapproved seat-time waivers. States can also engage pre-K-12 and postsecondary stakeholders to create common standards for translating competency-based credits into Carnegie units, the time-based measure of academic credit commonly used by higher education institutions in the college admissions process. Regional advocacy organizations can play a role in increasing public knowledge and acceptance of credit received based on content mastery. For

example, the New England Secondary Schools Consortium advocates proficiencybased credit by asking colleges and universities in its five member states to sign a pledge endorsing competencybased education. To date, 55 colleges and universities have signed the pledge, which declares that applicants with competencybased credit or transcripts will not be disadvantaged in any way. This approach can ensure that students are able to use competency-based credits at private, as well as public, institutions.

LEGISLATION

Maine, Title 20-A Statute 4722-A (proficiencybased diploma)

Ohio, S.B. 311 (established the Ohio Core Curriculum and credit flexibility)

Vermont, S.B. 130 (flexible pathways to graduation)

Michigan, amendment to State Aid Act (seattime waiver)

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RESEARCH AND RESOURCES

For examples of state and local efforts related to flexible seat-time requirements, see: http://www.ed.gov/oii-news/ competency-based-learning-or-personalizedlearning

A guide to competency-based education for state policymakers can be found at: http:// www.competencyworks.org/wp-content/ uploads/2013/02/inacol_cw_issuebrief_ building_mastery_final.pdf

An article on state policies related to seat time and content mastery can be found at: http://www.edweek.org/ew/ articles/2012/03/07/23biz-state.h31.html

Learn about **Ohio's Credit Flex** program at: http://education.ohio.gov/Topics/School-Choice/Credit-Flexibility-Plan

The National Governors Association released a set of recommendations for state policy changes to implement a competencybased system. See: http://www.nga.org/cms/ home/nga-center-for-best-practices/centerpublications/page-edu-publications/col2content/main-content-list/state-strategiesfor-awarding-cr.html

For a discussion on the need for higher education institutions to accept competency-based diplomas, see: http:// mainedoenews.net/2013/11/13/collegescommit-to-accepting-proficiency-baseddiploma/

View the list of colleges and universities that have signed the New England Secondary Schools Consortium pledge at: http:// newenglandssc.org/resources/endorsements



PERSONALIZED LEARNING POLICY PLAY #13:

CREATE ACCOUNTABILITY MECHANISMS
THAT GIVE SCHOOLS CREDIT FOR
ADVANCING STUDENTS WHO ARE
FAR BEHIND GRADE LEVEL

CONTEXT

Personalized learning has particular potential to benefit students who are far below grade level. In traditional whole-class instructional settings, teachers calibrate instruction to grade-level content. As a result, students who are below grade level rarely receive explicit instruction that will close gaps from their previous schooling; lacking the foundational skills to master grade-level content, these students fall further and further behind. Personalized learning models help solve this problem by diagnosing each student's current skill level and enabling teachers to differentiate instruction and learning experiences so that students who are behind can master foundational skills before moving on to grade-level content. Unfortunately, state accountability systems, which use tests calibrated to grade-level standards, may not give schools sufficient credit for making progress with students who start out far below grade level. These traditional systems may even create a disincentive for schools to focus on building these students' foundational skills. Even growth models, designed to measure student progress over a year, may not reflect growth among students who are very behind academically when these models use data from exams covering grade-level content. To foster the expansion of personalized learning models that improve outcomes for below-grade-level students, policymakers must ensure that accountability systems award credit to schools improving students' knowledge and skills—even if these students are still not ready for grade-level content.

PLAY IN ACTION

Under federal law, states must assess every student using the statewide assessment for the student's current grade. But there is nothing to prevent states or districts from taking into account additional data that provide a fuller picture of the progress schools foster among students who begin a school year far below grade level. Other types of formative and adaptive assessments, such as the Northwest Evaluation Association's Measures of Academic Progress, can provide a measure of student growth that is not dependent on a state assessment aligned to grade-level standards. Because personalized learning models involve frequent, ongoing formative assessments to calibrate instruction to students' progress, they have a wealth of such data. States should create multiple pathways for evaluating schools that, although they may perform poorly on statewide assessments, exhibit strong growth on other types of measures.

Colorado offers an example of how to thoughtfully incorporate this sort of data into judgments of school performance. The Colorado Department of Education evaluates all schools and districts in the state based on four performance indicators: academic achievement, academic growth, academic growth gaps, and postsecondary and workforce readiness. Data for these

measures come from statewide standardized assessments, the Colorado Growth Model, and school-level measures such as graduation rate.

Using this data and the district and school performance frameworks, the Colorado Department of Education then determines a preliminary accreditation rating for each district, as well as the improvement plan status for each school in the state.1 If a district disagrees with its accreditation status or with the improvement plan status of any of its schools, it can submit a request for reconsideration. In its request, the district must provide alternate data or evidence that reflect student progress on state performance indicators. A team will review each district and school's evidence and make a final recommendation to the education commissioner as to whether a district's accreditation status or a school's plan type should be revised. By allowing districts to submit additional data, Colorado recognizes that state-identified measures may not present a comprehensive picture of how some schools, particularly those with at-risk populations, serve their students. Allowing districts to provide additional data to the state also decreases pressure on educators to "teach to the test," and may encourage schools to implement personalized learning models.

Colorado school districts may fall into one of five categories: accredited with distinction, accredited, accredited with improvement plan, accredited with priority improvement plan, and accredited with turnaround plan. Schools are assigned one of four improvement plan types: performance, improvement, priority improvement, or turnaround. For more information, see: http://www.cde.state.co.us/accountability/performanceframeworks

IMPLEMENTATION CONSIDERATIONS

States that wish to allow districts or schools to provide alternative evidence of student progress must determine when to allow them to provide such data. Colorado allows districts to submit data to appeal their accreditation status once they have received it from the state. But such an appeals process may not address the concerns of some schools, which may fear that even a successfully appealed rating would still send a message to parents and the public that the school is struggling. States could go a step further by allowing districts to submit alternative measures for "pre-clearance" at the beginning of a school year. If states approve of these alternative measures, schools would provide the data for them at the end of the school year. A pre-clearance process would signal that the state approves of other metrics of student growth, and could offer greater legitimacy to schools that want to use alternative measures. During the pre-clearance process, the state and the school or district would agree to specific performance targets to demonstrate adequate growth. Schools that do not meet these targets would still be identified as failing to make sufficient growth.

Policymakers will need to decide how much flexibility to grant districts in submitting additional evidence of student progress. Colorado allows all districts to submit alternative data to appeal their performance rating, but states may want to consider allowing only districts or schools that serve

particularly high-need student populations, or those that are implementing innovative models, to be eligible for such a process. States may also wish to pilot the process by allowing a handful of selected schools to submit alternative evidence of student growth, in order to refine pre-clearance and goal-setting criteria before expanding the process to other schools.

In addition, states will need to establish rigorous processes to review evidence submitted by districts and to ensure that additional measures do not compromise rigor. Some state education agencies may have staff capacity to review the data and make these determinations, while other states may want to create independent expert panels. Certain methods of evaluating student growth based on metrics other than grade-level standards—such as the Northwest Evaluation Association's Measures of Academic Progress—are currently used by many districts, but as personalized learning models evolve, providers and schools may start using new types of assessments. An expert panel would be able to advise a state on whether students in a particular school or district are truly making adequate growth.

States will also need to set standards for how much student progress schools must demonstrate. For students who are far behind grade level, simply providing evidence of some growth is not enough. To close the achievement gap, students behind

grade level must make more than a year's worth of academic progress each year. In Colorado, adequate growth for lowperforming students is defined as growth that will place a student on track to gain grade-level proficiency within three years.2

Transparency is crucial to any process that allows districts or schools to receive credit for student growth using alternative metrics. Parents and the public should have access to both the data that led to the school's original rating and the data presented by the school to justify changing the rating (with the caveat that states should not release any data that compromise the privacy of individual students). Such transparency is important to ensuring the integrity of the process and public trust in revised ratings, and to enabling parents and other stakeholders to make informed decisions about school performance.

LEGISLATION

Colorado, S.B. 09-163 (Education Accountability Act)

CONTACT FOR ADDITIONAL INFORMATION

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RESEARCH AND RESOURCES

A summary of the outcomes of Colorado districts and schools that requested reconsideration of their ratings in 2013 can be found at: http://www.cde.state.co.us/ sites/default/files/2013RequesttoReconsider Summaries.pdf

More details on the process for Colorado school districts to request reconsideration of their ratings can be found at: http:// www.cde.state.co.us/sites/default/ files/Submitting%20Accreditation%20 Categories%20and%20Requests%20to%20 Reconsider_07-30-13.pdf

For more information on Northwest **Evaluation Association's Measures of** Academic Progress, see: http://www.nwea. org/products-services/assessments

[&]quot;Catch-up growth" in Colorado is defined as sufficient growth for a student to reach grade-level proficiency within three years or by 10th grade, whichever comes first. For more information, see: http://www.cde.state.co.us/sites/default/files/documents/uip/ $downloads/data analysis i_training materials/adequate growth basics.pdf$



PERSONALIZED LEARNING POLICY PLAY #14:

ENSURE THIRD-PARTY PROVIDERS ARE
ABLE TO ACCESS THE DATA THEY NEED
TO SUPPORT PERSONALIZED LEARNING,
WHILE ALSO PROTECTING STUDENTS'
PRIVACY AND FERPA RIGHTS

CONTEXT

Personalized learning models create a wealth of data about student learning and progress, and use this data to customize instruction and support to students' current skill levels, interests, and learning styles. This explosion of educational data has real potential to improve student learning outcomes, but it also creates new challenges. One such challenge involves the question of who owns student data and when and how schools or districts may share that data with third-party providers supporting personalized learning models. Schools, districts, and providers must be able to access and use the data they need to customize student learning experiences, but they must also protect student privacy.

Numerous state and federal laws exist to protect student privacy and ensure that student data are not shared inappropriately. These policies have been established in a piecemeal fashion over time, however, creating confusion for schools that want to implement personalized learning models. Recent controversies illustrate this challenge. District partnerships with inBloom, a nonprofit organization that used cloud-based storage to manage student data, led to parental concern that third-party providers may inappropriately share data with other external providers. After facing continued opposition from parents and school districts, inBloom decided to wind down its operations. Meanwhile, a group of nine plaintiffs, represented by the Electronic Privacy Information Center, recently sued Google for violating federal education privacy laws after the company admitted that it scans e-mails of students who use Google Apps for Education. In response, Google announced that it will no longer collect or use data from Apps for Education for advertising purposes.

States are beginning to pass data privacy bills, but these bills vary widely in their scope and the types of limitations they place on data sharing. Some are merely cosmetic and do little to protect student privacy. At the other extreme, poorly designed legislation could create major hurdles to implementing personalized learning models that use data to customize student learning experiences.

PLAY IN ACTION

To protect student privacy, states should require districts to develop clear guidance for providers and schools regarding access, use, and disclosure of student data. Charter school authorizers—both district and non-district—should adopt similar guidelines. A 2014 report from the U.S. Department of Education's Privacy Technical Assistance Center (PTAC) provides guidelines on proper use and storage of data generated by digital learning resources. In addition, the Consortium for School Networking (CoSN), in partnership with Harvard Law School's Cyberlaw Clinic, released a toolkit in 2014 to help school systems navigate the privacy issues they face when using education technology. These guidelines are designed to provide broad recommendations for schools and districts, but district leadership will still need to establish specific policies based on local needs.

Both PTAC and CoSN recommend that schools and districts partnering with thirdparty providers create written contracts or legal agreements that clearly state the types of data collected and the purpose of collecting them. Contracts should also include specific provisions about data use and destruction, conditions for disclosing student information, and procedures in the event of a security breach. States can help by providing schools and districts with model contract language, which would be beneficial because existing district service contracts, such as those with transportation providers, do not typically address some of the crucial issues that emerge in partnerships with personalized learning providers. For example, contracts may need to discuss providers' rights and responsibilities in using or sharing metadata—information that provides additional meaning to collected data (for example, the number of times a student attempts to answer a question before responding correctly). PTAC's guidance emphasizes that providers should use these contextual data only for the purposes for which they were received. (Google's potential use of student metadata was a key issue in the lawsuit regarding the company's Apps for Education.)

PTAC also recommends that schools and districts be as transparent as possible with parents and students about what data are being collected, who has access to them, and how they may be used. Districts should annually inform parents and students about their student data collection and privacy policies, as well as parents' rights, and publish this information online. This transparency will allow parents to fully understand school standards regarding technology and privacy, as well as their rights in relation to their child's personal information.

IMPLEMENTATION CONSIDERATIONS

One key challenge to creating state and local policies regarding student privacy is ensuring these policies align with the Federal Education Rights and Privacy Act (FERPA). FERPA was established in 1974, before the era of digital learning. As a result, education stakeholders today have different opinions on how students' personally identifiable information should be protected from third-party providers. Although FERPA restricts schools from releasing student data without parental or student consent, the law has several exceptions that schools and providers can leverage. For instance, the school official exception allows schools to release student data to a third-party provider if the provider meets criteria—set by the school's or district's annual FERPA notification for being a school official with a legitimate interest in student education records. Because diverse stakeholders may interpret these exceptions differently, districts should create clear standards for schools partnering with third-party providers.

Schools should maintain ultimate control over student data. This will prevent outside providers from using student data for unauthorized purposes such as targeted advertising. In an example discussed in the PTAC guidelines, a provider managing a school's cafeteria account services may have access to student names and other data to create an online system for students and parents. This provider may not, however, use these data to create targeted food advertising directed at the same students.

In creating or revising policies on data and student privacy, districts should make sure they do not create conditions that are overly restrictive for schools and providers. For schools to serve students as effectively as possible, they must have access to improved technology, and this technology depends on the use of data to personalize instruction for each student. Districts should not be so cautious that they create barriers to the implementation and use of effective personalized learning models that have the potential to dramatically improve student performance.

CONTACT FOR ADDITIONAL INFORMATION

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RESEARCH AND RESOURCES

A New York Times article on the controversy related to inBloom and the company's decision to wind down operations is available at: http://bits.blogs.nytimes. com/2014/04/21/inbloom-student-datarepository-to-close/

Read about the lawsuit Google faces regarding its **Apps for Education** at: http:// www.theguardian.com/technology/2014/ mar/19/google-lawsuit-email-scanningstudent-data-apps-education

Read Google's announcement about its new privacy policies for Apps for Education at: http://googleenterprise.blogspot. com/2014/04/protecting-students-withgoogle-apps.html

The **federal PTAC report** on protecting the privacy of students using online educational services is available at: http://ptac.ed.gov/ sites/default/files/Student%20Privacy%20 and%20Online%20Educational%20 Services%20%28February%202014%29.pdf

An Education Week article reviewing the **PTAC guidelines** is available at: http://blogs.edweek.org/edweek/ DigitalEducation/2014/02/us_ed_dept_ issues_guidance_on_.html

A New York Times article discussing the federal PTAC guidelines is available at: http://bits.blogs.nytimes.com/2014/02/25/ regulators-weigh-in-on-online-educationalservices/

The toolkit from the Consortium for School **Networking** can be viewed at: http:// cosn.org/sites/default/files/Protecting%20 Privacy%20in%20Connected%20 Learning%20Toolkit%202014_0.pdf

Additional information on **FERPA** is available at: http://www.ed.gov/policy/gen/guid/fpco/ ferpa/index.html

The Fordham Center on Law and Information Privacy published a report on protecting student privacy in the era of cloud computing. The report can be read at: http:// ir.lawnet.fordham.edu/cgi/viewcontent. cgi?article=1001&context=clip

Digital Learning Now has broad guidelines for protecting student privacy in personalized learning environments, available at: http://www.digitallearningnow. com/blog/trust-in-the-classroom-protectingstudent-data-privacy-and-security/

The Data Quality Campaign has published several articles on considerations surrounding privacy, security, and confidentiality when schools collect and use student data. See: http:// dataqualitycampaign.org/action-issues/ privacy-security-confidentiality/

The Federal Trade Commission updated its Children's Online Privacy Protection Act FAQs to offer additional guidance about when schools can provide consent on behalf of parents to third-party providers. See: http://www.business.ftc.gov/ documents/0493-Complying-with-COPPA-Frequently-Asked-Questions#Disclosure



PERSONALIZED LEARNING POLICY PLAY #15:

REFORM PROCUREMENT REGULATION TO FOSTER IMPLEMENTATION OF PERSONALIZED LEARNING

CONTEXT

State and district procurement policies can pose significant barriers to the development and effective implementation of new personalized learning models. Existing procurement processes were originally designed for schools to purchase specific, tangible goods and services (for example, textbooks, food services). As a result, processes do not adequately address the range of issues involved in more complex contracts for personalized learning services and models, such as student data security and provider accountability for student results. Without the ability to tackle these issues during the procurement process, schools and districts may not be able to implement personalized learning models in a meaningful and effective way.

Effective implementation of personalized learning requires services that are customized to local needs. Schools and districts that want to partner with third-party providers need to be able to work collaboratively and iteratively with vendors and other partners to determine a mix of products and services that will best meet students' needs. But current practices typically require the customer to define up front the goods or services to be purchased, and they prohibit communication with potential vendors during the procurement process. As a result, schools and districts may purchase goods and services that do not align with what they want or need.

Many states and districts have instituted lengthy and bureaucratic procurement processes that lag behind the rapid pace of technological innovation. The inflexibility of the traditional purchasing cycle and the amount of red tape involved may deter schools from acquiring new services. Schools that do move forward with purchasing and implementing personalized learning models may not end up with the services or tools that they need if their circumstances change during the purchasing lifecycle. Existing procurement processes may also dissuade providers from entering the education market.

PLAY IN ACTION

States or districts can eliminate these barriers and foster collaboration by establishing a two-stage proposal and contract process to engage vendors in complex personalized learning projects. A customized, two-stage process would also help schools and districts purchase the tools and models that they actually want.

The first stage would be a request-forproposals process, during which the district would select a vendor for the project based on evidence of past performance and qualifications. In the second stage, districts would work with the vendor to define a scope of work customized to the district's needs, offered as a sole-source contract. Pennsylvania has implemented this type of two-stage procurement reform. Under

the state's Invitation to Qualify program, vendors that want to partner with a state agency first participate in a qualification screening. The second step is a quoting process, during which vendors and buyers can discuss services required and negotiate contract terms.

Districts and vendors may want to consider implementing a pilot as part of the contract. A pilot would give schools the opportunity to assess whether a new product or model will truly benefit students. Because a pilot involves implementation of a new model on a much smaller scale, providers could make changes to the model as needed before full implementation.

IMPLEMENTATION CONSIDERATIONS

Allowing districts to use a two-stage procurement process may require changes to state policies. Alternatively, states could offer districts waivers from certain procurement requirements when those requirements would interfere with a district's ability to implement personalized learning. Under Pennsylvania's Mandate Waiver Program, which expired in 2010, schools could request flexibility from certain regulations if they were able to improve their instruction or operate in a more effective or efficient manner. More than two-thirds of the requests under the Mandate Waiver Program were related to procurement.

States should also consider providing districts model contract language that they can adopt to address key issues—such as provider accountability; liability; and use, storage, sharing, and protection of student data—that are crucial to more complex services agreements for personalized learning providers.

Finally, states should consider conducting a thorough audit of their existing procurement policies and rules to identify ways in which these policies may constrain schools' and districts' ability to innovate or purchase goods and services that best meet their students' needs. Although procurement processes were designed for good reasons—to prevent fiscal malfeasance and ensure fairness in the selection process for public contracts—over time, additional red tape and bureaucracy may have evolved in a way that complicates the process without helping states or districts achieve their ultimate goals. By reviewing policies from time to time, states can eliminate or reduce requirements that are not essential to advancing the state's goals or to ensuring proper fiscal and contract management.

CONTACT FOR ADDITIONAL INFORMATION

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RESEARCH AND RESOURCES

Digital Learning Now published a guide to education technology procurement in 2014. See the report at: http://www. digitallearningnow.com/wp-content/ uploads/2014/01/Procurement-Paper-Final-Version.pdf

Learn more about Pennsylvania's Invitation to Qualify process at: http://www.portal. state.pa.us/portal/server.pt/community/ invitation_to_qualify/4641/where_to_ start/495422

View a list of current Invitation to Qualify contracts in Pennsylvania at: http://www. itqrp.state.pa.us/ITQ/ITQ/WhereToStart.aspx

A report from Bellwether Education Partners discusses how current procurement policies limit innovative practices in education. View the report at: http://bellwethereducation. org/wp-content/uploads/2011/09/pulll-andpush.pdf

A paper for a 2007 American Enterprise Institute conference discusses how procurement acts as a barrier to entry in education. See: http://www. aei.org/files/2007/10/25/20071024_ BergerStevenson.pdf

Learn more about Pennsylvania's Mandate Waiver Program at: http://www.education. state.pa.us/portal/server.pt/community/ education_empowerment_act/7403